Guide to Good Food © 2015  
Chapter 18: Meat—Food Science Activity

**The Color of Meat**

Fresh beef, veal, pork, and lamb all have characteristic colors. For instance, fresh beef is usually bright, cherry red in color. Many consumers look for these colors as a sign of quality when purchasing meat. Some people become concerned when the products in the meat case at the grocery store do not have the expected colors. The color of meat, however, is the result of chemical reactions between pigments in the meat and oxygen in the atmosphere.


**Activity Questions:**

1. What protein is responsible for the majority of the red color of meat, and what color is this protein?

2. What chemical reaction produces a bright red color in meat?

3. What are four other factors that can affect the color of meat?
4. What characteristics generally accompany a color change in meat that is spoiled?

5. How can color changes of frozen meat be minimized?

6. What is metmyoglobin and how is it formed?

7. What causes beef to darken during refrigerator storage?

8. What might cause thoroughly cooked ground beef to have a pink color?